

HSM107S

Silicon Schottky Barrier Diode for System Protection

HITACHI

 Rev. 5
 Aug. 1995

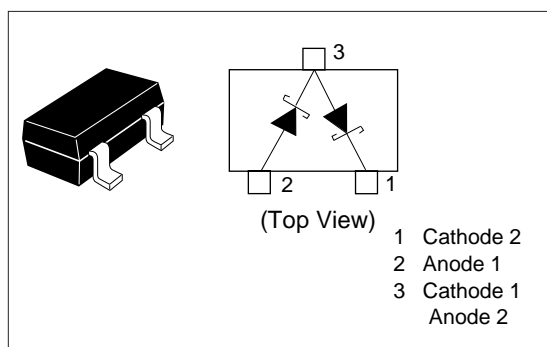
Features

- Low V_F and high efficiency.
- HSM107S which is interconnected in series configuration is designed for protection from not only external excessive voltage but also misoperation on electric systems.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Mark	Package Code
HSM107S	C 5	MPAK

Pin Arrangement



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
Reverse voltage	V_R	8	V
Peak forward current	I_{FM}^{**}	0.1	A
Non-Repetitive Peak forward surge current	I_{FSM}^*	0.5	A
Average forward current	I_O^{**}	50	mA
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +125	$^\circ\text{C}$

* Square wave, 10ms

** Per one device

Electrical Characteristics * ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	V_R	8	—	—	V	$I_R = 1.0 \text{ mA}$
Reverse current	I_R	—	—	30	μA	$V_R = 5 \text{ V}$
Forward voltage	V_F	—	0.3	V	V	$I_F = 10 \text{ mA}$
ESD Capability	—	100	—	—	V	** C=200pF, Both forward and reverse direction 1 pulse

* Per one device

** Failure Criterion ; $I_R \geq 60\mu\text{A}$ at $V_R=5\text{V}$

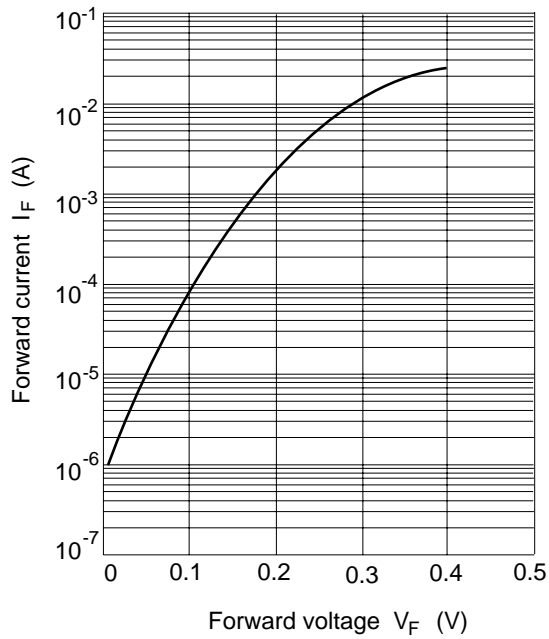


Fig.1 Forward current Vs. Forward voltage

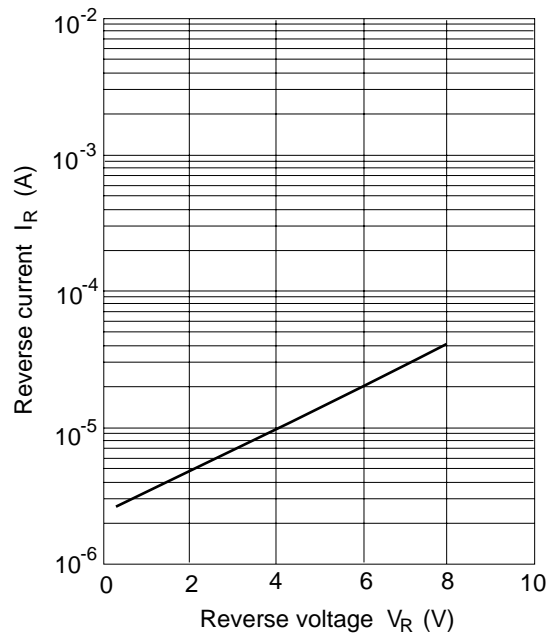


Fig.2 Reverse current Vs. Reverse voltage

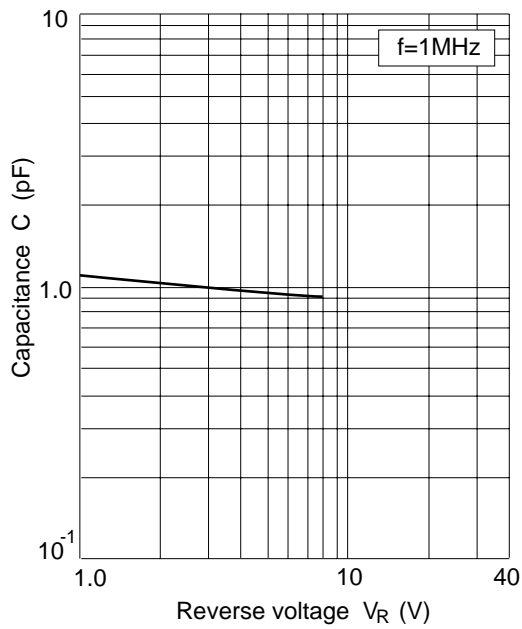


Fig.3 Capacitance Vs. Reverse voltage

